

USAID Trade Project

ICT Capabilities Assessment at the National Tariff Commission

USAID Trade Project

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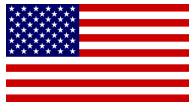
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1. Purpose

The Capabilities Assessment activity aims at providing an overview of the baseline Information and Communications Technology (ICT) capabilities of the National Tariff Commission (NTC) of Pakistan. It would describe NTC's capability to perform its own internal ICT support functions, including current Analytical framework used for Econometric progressions, network operations support, helpdesk and training services, and describes the ICT infrastructure environment within the organization. The Information acquired from this activity will be used to determine the gap between the NTC's current ICT capabilities and its potential future state as envisioned by NTC in accordance with the Ministry of Commerce's technology guidelines and budget constraints.

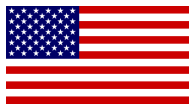
2. Approach/Methodology

NTC's current ICT capabilities will be assessed by taking into consideration the current Organizational Structure, Business processes for ICT operations support, Security operations, Business process for helpdesk, ICT Network assets and topology, Desktop environments/software used to facilitate daily operations and building Knowledge management system. The extent to which each broad category will be assessed is described in Section 3 of this document.

3. Tools and Techniques

Needs assessments rely on a broad set of common tools and techniques for collecting information and making decisions; many of these tools and techniques are also applied during or after an activity for monitoring, quality improvement, and evaluation purposes. From focus groups and interviews to scenarios and fish-bone diagrams, most of the tools are not unique to the needs assessment process; rather, it is the "before a decision is made" perspective applied to each tool that defines the value of a needs assessment. Various tools and techniques would be applied to gather NTC's current ICT Capabilities that include:

- **Documents and Data Review** The purpose of conducting a document or data review is to review a variety of existing sources (for example, documents, reports, data files, and other written formats) with the intention of collecting independently verifiable data and information.
- **Guided Expert Reviews** The purpose of conducting guided expert reviews is to gain informed perspectives from valued experts who are outside the system on which the needs assessment is focused.
- **Management of Focus Groups** The purpose of conducting focus groups is to collect information from a small group (for instance, 5 to 12 participants) in a systematic and structured format. An effective focus group is designed around a clear and specific goal. Participants interact with a facilitator who presents the participants with questions designed to yield insight into current or desired results in relation to a specific topic or issue.
- **Interviews** The purpose of conducting interviews is to collect information from a single person through a format that may range from structured, to semi-structured, to unstructured.
- **Dual-Response Surveys** The purpose of conducting dual-response surveys is to collect information from a large number of people typically located in multiple locations regarding their perspectives on both current and desired performance.
- **SWOT Analysis** The purpose of conducting a SWOT is to identify, organize, and prioritize the strengths, weaknesses, opportunities, and threats (or SWOTs) that influence the planning, design, development, implementation, and evaluation of almost any program or project.



- **DELPHI Technique** This technique will be used to gather data and opinions from experts (such as identifying primary performance constraints) and relies on panels of experts to provide information in a systematic and iterative manner.
- **Performance Observations** The goal of a performance observation is to accurately document the steps, procedures, tools, and decisions used to accomplish current performance of NTC.
- **Task Analysis (Hierarchical or Sequential, If-Then, and Model-Based)** The purpose of a task analysis is to systematically describe, document and analyze the activities, procedures, processes, and resources that are used by individuals or groups to accomplish current results.
- **Cognitive Task Analysis** The purpose of a cognitive task analysis (CTA) is to systematically define the decision requirements and psychological processes used by expert individuals (or performers) in accomplishing results.

4. Information Communication Technology (ICT) Capabilities

4.1 Organizational Capabilities

4.1.1 Organizational Structure

This section in the capabilities assessment document will provide a brief history of the current organizational model and analysis of the actual reporting channels within the organization. This task will be completed using various Questionnaires and conducting Interviews with all related departments within the organization.

4.1.2 Employee Roles and Responsibilities

This section will describe the extent to which employee roles and responsibilities are defined, how these roles and responsibilities are communicated to employees, whether employees understand their roles and responsibilities and the extent to which job description accurately reflects the work performed.

4.1.3 Business Process Guidelines and workflows

This section will describe the extent to which the business processes that support the main functions of the organization have been designed, documented, and made available to employees. If business processes have not been defined, clarification of how workflow is currently managed within the organization.

4.1.4 Users of NTC's ICT infrastructure

This section would describe relationship between employees and functions they perform that require ICT support, what services they use and what types of devices support these services. Services of interest are basic services such as office productivity tools, email, file-sharing, internet browsing and text messaging. This section would not be intended to be an inventory of devices, but a simple determination of what types of devices are employed by the organization.

4.1.5 ICT Employees - Roles and responsibility

This section will be very similar to section 2.1.2, but focuses on those employees who provide ICT support services, and would describe in detail the extent to which roles and responsibilities are defined, how these roles and responsibilities are communicated to employees, whether employees understand their roles and responsibilities and the extent to which job description accurately reflects the work performed within the IT department.



4.1.6 ICT Employees - Skill Levels

This section would describe the skill levels of all resources employed by the organization that provide ICT services to the organization. It will be based on self-reported information obtained during an interview of the employees. It would include a narrative summary of the employee skill levels.

4.1.7 ICT Employees - Performance Evaluation Process

This section will provide a brief description of the ICT employee performance evaluation process, including the content of the evaluations and the frequency of their administration. It would also describe the decisions that the evaluation process supports (salary increases, promotions, recognition, training needs assessment, etc.).

4.1.8 ICT Employees – Training Requirements and delivery methods

This section would describe the organization's training requirements for ICT support employees. It would describe how training needs are determined, the availability of training materials and infrastructure, and the means by which training is delivered.

4.2 Business Processes - ICT Operations Support

4.2.1 ICT Operations

This section will describe the ICT operations which the organization's ICT staff currently undertake, both internal to the organization and, if applicable, external to the organization.

4.2.2 External Business Relationships

This section will describe the business relations between the NTC, PRAL and other private sector entities (e.g. Internet service provider, Website hosting company, contract service providers, etc.). This section will also cover the format of data NTC get from its sources.

4.3 ICT Security Operations

4.3.1 Physical Security

This section will contain description of the security measures that are in place to prevent data loss, unauthorized access to data and other unwanted activities in the network.

4.3.2 Logical Security

This section will contain description of the logical security measures which are utilized for preventing unauthorized access to systems and data.

4.4 ICT Helpdesk Business Process

4.4.1 Customer Base

This section will describe the customer base, both internal and external, of the National Tariff Commission's helpdesk. This would also provide an overview of the users and the type of problems they face in accomplishing daily routine tasks.

4.4.2 Services Provided

This section would contain description of the helpdesk services provided by the NTC.

4.4.3 Helpdesk Process Flow

This would describe the process flow of the current approach to provide Helpdesk services.

4.4.4 Helpdesk Administrator

This section would describe the availability of staff to be trained in the role of Helpdesk Administrator. The Helpdesk Administrator is the person with primary responsibility for maintaining the Helpdesk process.



4.4.5 Automated Helpdesk Support System

This would describe the availability of automated Helpdesk support system. The implementation of such a system requires the availability of a server to support the helpdesk software, a local network environment and a connection to the internet.

4.5 ICT Network Infrastructure

4.5.1 Network Architecture/Topology

This section would contain a description of the network topology deployed at NTC's Head office and regional offices. Network topology diagrams will also be developed to access the current Network infrastructure.

4.5.2 Network Assets – Hardware

This section would describe the types of hardware devices that are used in the network like Routers, Switches, Firewalls, etc.

4.5.3 Network Assets – Software

This describes the software used for managing and optimizing the network.

4.5.4 Domain Environment

This describes the existence of Domain Naming server (DNS) and Domain policy.

4.5.5 E-mail Server

This section describes the existence of SMTP/POP3 servers, Number of e-mail accounts used within the organization and the usage of e-mail service to enhance employee's productivity.

4.5.6 Web Server

This section describes the existence of the server to host NTC's current website and technology used to build NTC's current website. This would also include an analysis of Hosting Prices if Web server is outsourced.

4.5.7 Firewall Approaches

This section would describe the measures employed to ensure security of the network infrastructure. This would also include the list of websites blocked by Networks department to enhance employee's productivity.

4.6 ICT Infrastructure Workstation (Desktops/Laptops)

4.6.1 Operating Systems

This section describes the operating system (Windows, Mac, Linux, etc.) used for Desktops or Laptops within the organization. Pirated copies of OS will also be reported in this section.

4.6.2 Productivity Tools

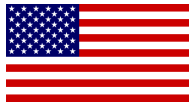
This section would describe the productivity tools (word processors, spreadsheets, databases, presentation tools, collaboration tools, Instant Messaging tools, etc.) utilized by NTC staff.

4.6.3 Workstation Deployment Process

This describes the workstation (Desktop/Laptop) deployment process used by NTC. The workstation deployment process ensures the proper utilization of resources; all computers should have a constant desktop configuration customized to the needs of business delivery.

4.6.4 Workstation Inventory Management System

This section would describe the inventory management process for IT assets of all types. The inventory tracking system is required to monitor the availability of IT assets, to plan for stock top-



up, to track warranty coverage, software license expiration and equipment depreciation information.

4.6.5 Workstation Compliance Policy

This section describes any standards that may exist within the NTC regarding the specifications of computer hardware and software to ensure consistency. This would also include the list of vendors with whom NTC have dealt with and their working relationship.